

Application No.: 09/672,987

Atty Docket: HBES 1023-1

In the Claims:

1-4. (Canceled)

5. (Currently Amended) A selectable resolution image capture system comprising:

an imager having a plurality of photocells that produce an analog electrical response to light exposure;

a circuit that converts the electrical responses of the plurality of photocells into digital signals;

the circuit having a full-resolution mode and a low-resolution mode; and

an image processor that operates the circuit and selects between the full-resolution and low-resolution modes of the circuit to capture an image, where the image processor detects whether there is a low incident light condition, and if so, captures the image using the low-resolution mode of the circuit.

6. (Previously presented) A selectable resolution image capture system comprising:

an imager having a plurality of photocells that produce an analog electrical response to light exposure;

a circuit that converts the electrical responses of the plurality of photocells into digital signals;

the circuit having a full-resolution mode and a low-resolution mode; and

an image processor that operates the circuit and selects between the full-resolution and low-resolution modes of the circuit to capture an image, where the image processor detects whether there is a low power condition, and if so, captures the image using the low-resolution mode of the circuit.

7-8. (Canceled)

9. (Currently Amended) A selectable resolution image capture system comprising:

an imager having a plurality of photocells that produce an analog electrical response to light exposure, wherein the imager is a color imager having a plurality of red, green, and blue photocells producing electrical responses to red, green, and blue light, respectively;

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a circuit that converts the electrical responses of the plurality of photocells into digital signals;

the circuit having a full-resolution mode and a low-resolution mode; and

an image processor that operates the circuit and selects between the full-resolution and low-resolution modes of the circuit to capture an image;

~~wherein the imager is a color imager having a plurality of red, green, and blue photocells producing electrical responses to red, green, and blue light, respectively~~

wherein in the low resolution mode, at least two same colored photocells are read into a combined output signal, the combined output signal excluding any contribution from any differently colored photocell at least partly positioned between the same colored photocells.

10. (Original) The selectable resolution image capture system of claim 9, where the circuit, in the low-resolution mode, combines the electrical responses of groups of four same-colored photocells together and converts the combined electrical responses of each group into a corresponding digital signal to produce a low-resolution image.

11-13. (Canceled)

14. (Currently Amended) A method of capturing an image comprising:
selecting between a low-resolution mode and a high-resolution-mode;
exposing an array of photocells that produce electrical charges in response to light exposure to light;

detecting incident lighting conditions and selecting the low-resolution mode if low-light levels are detected; and

if the high-resolution mode is selected, then converting each electrical charge into a digital signal to produce a high-resolution image;

else,

separating the array of photocells into discrete groups each having at least two photocells;

combining the electrical charges of each group's photocells together; and
converting each group's combined electrical charges into a digital signal.

15-16. (Canceled)

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17. (Previously presented) A method of capturing an image comprising:
selecting between a low-resolution mode and a high-resolution mode;
exposing an array of photocells that produce electrical charges in
response to light exposure to light;
detecting power conditions and selecting the low-resolution mode if
insufficient power is available to capture an image with the high-resolution
power; and
if the high-resolution mode is selected, then converting each electrical
charge into a digital signal to produce a hi&-resolution image;
else,
separating the array of photocells into discrete groups each having at
least two photocells;
combining the electrical charges of each group's photocells together; and
converting each group's combined electrical charges into a digital signal.
18. (Canceled)
19. (Currently Amended) A method of capturing an image comprising:
selecting between a low-resolution mode and a high-resolution mode;
exposing an array of photocells that produce electrical charges in
response to light exposure to light, the array of photocells comprising red, green,
and blue photocells that produce electrical charges corresponding to red, green,
and blue light, respectively; and
if the high-resolution mode is selected, then converting each electrical
charge into a digital signal to produce a high-resolution image;
else,
separating the array of photocells into discrete groups each having at
least two same colored photocells;
combining the electrical charges of each group's photocells together; and
converting each group's combined electrical charges into a digital signal,
the combined electrical charges excluding any contribution from any differently
colored photocell positioned at least partly positioned between the same colored
photocells; and
~~where the array of photocells comprise red, green, and blue photocells~~

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~~that produce electrical charges corresponding to red, green, and blue light, respectively~~

20. (Original) The method of claim 19, where the array of photocells are arranged in rows and columns with alternating patterns of red, green, red, green, and green, blue, green, blue.

21. (Original) The method of claim 20, where each group comprises four photocells that are responsive to the same color of light.

22-23. (Canceled)

24. (Currently Amended) A selectable resolution image capture system comprising:

an imager having a plurality of photocells producing electrical charges in response to light exposure;

a high-resolution mode for converting each electrical charge produced by the plurality of photocells into corresponding digital signals to produce a full-resolution image;

a low-resolution mode for combining the electrical charges produced by groups of at least two photocells and converting the combined electrical charges of each group into corresponding digital signals to produce a low-resolution image; and

means for detecting incident lighting conditions and selecting the low-resolution mode if the incident lighting conditions disfavor the high-resolution mode.